Global Health Security Agenda
Joint External Evaluation Process

4th International Biosafety & Biocontainment Symposium:
Global Biorisk Challenges: Agriculture and Beyond
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Purpose of this Presentation

• Brief background on the GHSA/IHR

• To discuss the Joint External Evaluation (JEE) process:
  – the development,
  – implementation and
  – use of results in developing a Country Roadmap
Significant Disease at Human-Animal Interfaces

West Nile Virus
Selected Diseases
at Human-Animal Interfaces

Monkeypox

SARS

MERS-CoV

H5N1, H1N1, H7N9 ...

What’s next?
Ebolavirus Ecology

Enzootic Cycle
New evidence strongly implicates bats as the reservoir hosts for ebolaviruses, though the means of local enzootic maintenance and transmission of the virus within bat populations remain unknown.

Ebolaviruses:
- Ebola virus (formerly Zaire virus)
- Sudan virus
- Tai Forest virus
- Bundibugyo virus
- Reston virus (non-human)

Epizootic Cycle
Epizootics caused by ebolaviruses appear sporadically, producing high mortality among non-human primates and duikers and may precede human outbreaks. Epidemics caused by ebolaviruses produce acute disease among humans, with the exception of Reston virus which does not produce detectable disease in humans. Little is known about how the virus first passes to humans, triggering waves of human-to-human transmission, and an epidemic.

Following initial human infection through contact with an infected bat or other wild animal, human-to-human transmission often occurs.

Human-to-human transmission is a predominant feature of epidemics.
GHS is a Wicked Problem
The Role of Agriculture in the Quest for Global Health Security
Action Packages*

Making the goals and objective understandable and operational required the development of 11 action packages with input from multiple countries at 3 international meetings (Helsinki, the Hague and Jakarta).

- Antimicrobial Resistance Action Package
- Zoonotic Disease Action Package
- Biosafety and Biosecurity Action Package
- Immunization Action Package
- National Laboratory System Action Package
- Real-Time Surveillance Action Package
- Reporting Action Package
- Workforce Development Action Package
- Emergency Operations Centers Action Package
- Linkages and Multisectoral Rapid Response Action
- Medical Countermeasures and Personnel Deployment Action Package

USDA Roles and Responsibilities in Action Packages most important from a USDA perspective:

- Prevent 1: Antimicrobial Resistance Action Package
- Prevent 2: Zoonotic Disease Action Package
- Prevent 3: Biosafety and Biosecurity Action Package
- Detect 1: National Laboratory System Action Package
- Detect 2/3: Real-Time Surveillance Action Package
- Detect 4: Reporting Action Package
- Respond 1: Emergency Operations Centers Action Package

* See GHSA Action Packages 26 September 2014
**Priorities**

**ZOONOTICS**
The zoonotic action package is squarely targeting animal populations, and should therefore be APHIS’ primary GHSA emphasis area. It speaks to the need for training on both human and animal health topics and the animal expertise APHIS can bring to the table. APHIS’ considerable expertise with zoonotic diseases can be leveraged; therefore, this action package should be the cornerstone for all APHIS involvement with the GHSA.

**ANTIMICROBIAL RESISTANCE**
As an action package, AMR is unique in that the U.S. has already developed and prioritized a domestic and international action agenda (outside of the GHSA) to make progress on issue. None-the-less, in that there is considerable international debate regarding the appropriateness of antibiotic use in food animal production, APHIS is obliged to weigh on the animal component of this action package to ensure that the U.S. perspective is shared with developing countries.

**NATIONAL LABORATORY SYSTEM**
Via International Services, APHIS has always targeted the laboratories as an essential aspect of capacity building. Developing a country’s laboratory infrastructure and disease detection and monitoring capabilities benefits both the country and the U.S. from a disease prevention and control perspective. In essence, to protect the U.S. from disease incursions, it pays to have our APHIS finger on the pulse of what is happening in the laboratories of other countries. Using the expertise garnered through establishing the NAHLN, APHIS can assist others in establishing a public and private laboratory network infrastructure that interfaces with the human lab system. In that the U.S. is the lead country for advancing this action package, APHIS must contribute to this initiative.
Biosafety and Biosecurity Action Package
GHSA Action Package Prevent-3

• **Five-Year Target:** A whole-of-government national biosafety and biosecurity system is in place, ensuring that:
  - especially dangerous pathogens are identified, held, secured and monitored in a minimal number of facilities according to best practices;
  - biological risk management training and educational outreach are conducted to promote a shared culture of responsibility, reduce dual use risks, mitigate biological proliferation and deliberate use threats, and ensure safe transfer of biological agents; and
  - country-specific biosafety and biosecurity legislation, laboratory licensing, and pathogen control measures are in place as appropriate.
Joint External Evaluation (JEE)

- On September 26, 2014, countries agreed that there was a need to be able to measure progress. A pilot tool was developed and several countries volunteered for the external pilot assessment process: Georgia, Peru, Uganda, Portugal, and the United Kingdom.

- WHO then developed and launched in February 2016 the IHR Joint External Evaluation, which includes all elements of the GHSA assessment.

- So far, 28 countries have completed a JEE, 32 more are scheduled, and an additional 27 have expressed interest in undergoing a JEE.

- Countries undergoing JEEs have agreed to have their final reports published online.
The GHSA Tool formed the basis of and was replaced by the WHO’s Joint External Evaluation (JEE) Tool as one component for IHR monitoring.
The process toward improving health security capacity requires continuous assessment of capabilities and (re)alignment of resources to address gaps.
The Alliance for Country Assessments

- International Organizations
- Member States
- Development Partners/Foundations
- Non-Governmental Organizations

- Advocacy and funding for external evaluations
- Enhancing multi-sectoral collaboration
- Financing of national plans
- Harnessing regional capacity
To sum it up - it takes a village

Face-to-Face Collaborations
Virtual Connections
Partnerships

Networks

OIE
FAO
Academia
Industry
WHO
USDA
FDA and CDC
Extension
State Wildlife
Producers
Private Practitioners
Tribal Nations
State Public Health
State Veterinarians
As our food and agriculture systems become increasingly global and complex, the roles of food and agriculture experts, agencies and organizations will continue to be fundamental to success of GHS vision.

USDA’s One Health Joint Working Group is proving to be an effective model for intradepartmental coordination on the cross-cutting, complex challenges of global health security initiatives.

International organizations like FAO and OIE will continue to be critically important for providing technical expertise, coordinating donors, and facilitating multilateral engagement for global health security.

To keep our human population healthy, we need healthy animals.

By joining forces with human health, by recognizing our common goals and interests and leveraging the intellectual and other resources available within the public health community, everyone wins.

The GHSA and JEE are excellent mechanisms to ensure global partnerships to provide a world safe from infections diseases.
Questions?